

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte FREDERICK IGNATZ-HOOVER

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Appeal No. 1997-3492  
Application No. 08/428,994

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ON BRIEF

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Before KIMLIN, JOHN D. SMITH, and HANLON, Administrative  
Patent Judges.

HANLON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final rejection of claims 1, 2, 4-7 and 15-25. Claims 8-14 are also pending in the application but have been withdrawn from

Appeal No. 1997-3492  
Application No. 08/428,994

consideration. The claims on appeal are directed to crosslinkable compositions. Claim 1 is illustrative and reads as follows:

1. A crosslinkable composition comprising a mixture of a halogenated elastomer selected from chlorinated or brominated interpolymers of a C<sub>4</sub> to C<sub>7</sub> isoolefin and a para-alkylstyrene comonomer, a crosslinking agent and from 0.1 to 10.0 parts by weight, per 100 parts of the halogenated elastomer by weight, of an accelerator compound containing one or more groups of the formula



attached to a hydrocarbon radical or to an organic bridging group wherein M is a monovalent metal, the equivalent of a multivalent metal, a monovalent ion derived by the addition of a proton to a nitrogenous base, or the equivalent of a multivalent ion derived by the addition of two or more protons to a nitrogenous base.

The references relied upon by the examiner are:

Delseth et al. (Delseth)	4,704,334	Nov. 3, 1987
Powers et al. (Powers)	5,162,445	Nov. 10, 1992

The following rejections are at issue in this appeal:<sup>1</sup>

(1) Claims 1, 2, 4-7 and 15-25 are rejected under 35

U.S.C. § 103 as being unpatentable over Delseth.

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<sup>1</sup>Claims 8 and 10-12 were also finally rejected under 35 U.S.C. § 112, first and second paragraphs. However, those rejections have been withdrawn by the examiner. See Answer, p. 1.

Appeal No. 1997-3492  
Application No. 08/428,994

(2) Claims 1, 2, 4-7 and 15-25 are rejected under 35 U.S.C. § 103 as being unpatentable over Powers with Delseth.

### Discussion

The claims on appeal are directed to a crosslinkable composition comprising a mixture of a halogenated elastomer selected from chlorinated or brominated interpolymers of a C<sub>4</sub> to C<sub>7</sub> isoolefin and a para-alkylstyrene comonomer, a crosslinking agent and an accelerator compound. The claimed accelerator compounds contain one or more groups of the formula -S-SO<sub>2</sub>-OM attached to a hydrocarbon radical or to an organic bridging group wherein M is a monovalent metal, the equivalent of a multivalent metal, a monovalent ion derived by the addition of a proton to a nitrogenous base, or the equivalent of a multivalent ion derived by the addition of two or more protons to a nitrogenous base.

Delseth discloses a vulcanizable rubber composition comprising a cis-polyisoprene, a sulphur vulcanizing agent, thiazole-based vulcanization accelerators and adhesion promoters. The adhesion promoters of Delseth are said to be

Appeal No. 1997-3492  
Application No. 08/428,994

effective in bonding rubber to metal and are inclusive of the claimed accelerator compounds. See Brief, p. 10. According to Delseth (col. 9, lines 55-62):

Examples of other rubbers which may be blended with cis-polyisoprene include poly-1,3-butadiene, copolymers of 1,3-butadiene with other monomers, for example styrene, acrylonitrile, isobutylene and methyl methacrylate, ethylene-propylene-diene terpolymers, and halogen-containing rubbers such as chlorobutyl, bromobutyl and chloroprene rubbers.

The examiner recognizes that "the claims encompass essentially the same ingredients in Delseth with exception of PMS [(para-alkylstyrene)]," but nonetheless urges that:

Delseth at column 9, lines 60, 61 states that halogen-containing rubbers (hcr) are subjected to formation of crosslinkable composition with same ingredients and PMS is a hcr. [See Answer, p. 3.]

Appellants argue (Brief, p. 11):

The Examiner's reasoning appears to be that since the p-methyl-styrene elastomers of the invention are halogenated, it would be obvious to substitute them for the halogenated elastomers of Delseth et al, and that they would thus be crosslinked. Applicant submits, however, that nothing in Delseth et al suggests such a substitution. Thus, the rejection is a classic "hindsight" rejection, based on Applicant's own teaching[.]

We agree. See In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) ("The mere fact that the prior art

Appeal No. 1997-3492  
Application No. 08/428,994

could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."); see also In re Gorman, 933 F.2d 982, 986-87, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (in a determination of obviousness under 35 U.S.C. § 103, it is impermissible to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps). Therefore, for this reason, the rejection of claims 1, 2, 4-7 and 15-25 under 35 U.S.C. § 103 as being unpatentable over Delseth is reversed.

Claims 1, 2, 4-7 and 15-25 are also rejected under 35 U.S.C. § 103 as being unpatentable over Powers with Delseth. Powers discloses a brominated copolymer of a C<sub>4</sub> to C<sub>7</sub> isoolefin and a para-alkylstyrene. According to Powers, the copolymer may be crosslinked with a variety of agents including metal dithiolates and promoted metal oxides such as ZnO + dithiocarbamates. See col. 32, lines 10-14. The examiner recognizes that "[t]he claimed composition differs from [the] composition of Power[s] in that applicant requires present

Appeal No. 1997-3492  
Application No. 08/428,994

[sic, the presence] of [a] thiosulfate compound," but  
nevertheless concludes:

Use of thiosulfate compound with polymer  
(halogenated isolefin-p-alkylstyrene) would be  
obvious because Delseth discloses that halogenated  
elastomers would be routinely treated with  
thiosulfate compounds to form crosslinked elastomers  
from crosslinkable compositions. [See Answer, pp. 3-  
4.]

Appellants argue (Brief, p. 12):

[T]he incorporation of Delseth et al into Powers et  
al fails to support an obviousness rejection. There  
is no reason to believe that rubber/metal adhesion  
promoters useful with cis-polyisoprene rubber would  
be effective in crosslinking p-methyl-styrene  
copolymers.

We agree. See In re Oetiker, 977 F.2d 1443, 1445, 24  
USPQ2d 1443, 1444 (Fed. Cir. 1992) (the examiner bears the  
initial burden of presenting a prima facie case of  
unpatentability). Therefore, for this reason, the rejection  
of claims 1, 2, 4-7 and 15-25 under 35 U.S.C. § 103 as being  
unpatentable over Powers with Delseth is also reversed.

REVERSED

Edward C. Kimlin )  
Administrative Patent Judge )  
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Appeal No. 1997-3492  
Application No. 08/428,994

PATENT	John D. Smith	)	
		)	BOARD OF
	Administrative Patent Judge	)	APPEALS AND
		)	INTERFERENCES
		)	
	Adriene Lepiane Hanlon	)	
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ALH:tdl

Appeal No. 1997-3492  
Application No. 08/428,994

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